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Orchestrating acts of kindness: An exploratory framework for designing beneficial kindness interventions

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ABSTRACT

Acts of kindness can enhance well-being for both actors and recipients. Consequently, numerous products and technologies have been created to foster such behaviors. However, existing design interventions often assume that any kind act will positively impact well-being, neglecting factors that determine whether acts will actually enhance actor and recipient well-being. To address this gap, we conducted an explorative investigation into everyday kindness dynamics. Through a diary study capturing 137 everyday acts of kindness, we identified 13 factors across three categories (context, characteristics, and outcomes) that influence actor and recipient well-being. We organized these insights into an exploratory framework and tested its application in a workshop with designers that explored the practical applications of these factors in intervention design. Our findings demonstrate that kindness impacts depend on complex interrelationships between factors such as timeliness and fit with individuals. These insights support designers in moving beyond encouraging random acts to orchestrating interventions that consider both actor and recipient experiences, creating more meaningful and impactful kindness interventions.

1. Introduction

Performing acts of kindness is widely recognized in positive psychology as a key strategy for enhancing well-being [1,2]. Something as simple as giving a compliment, helping a colleague with a task, or surprising a friend with a thoughtful gesture can boost the sense of happiness of both actors (those performing acts of kindness) and recipients (those receiving them). This insight has inspired a growing number of initiatives that encourage and support everyday kindness through tangible and technological means. For example, sharing functions on social platforms facilitate sharing content with friends, and cards enable us to express thoughtful sentiments to others in a tangible way. A quick internet search will find countless online (random acts of) kindness lists and calendars. The lists range from kindness activities at work, at school, or activities for children.

Inspiring and motivating users are two commonly used strategies to

design for acts of kindness. Kindness calendars and apps give daily suggestions of random acts of kindness to inspire us to act kindly. Some varieties incorporate persuasive features and incentives to motivate us to carry out the suggested deeds. However, designed interventions intended to promote kindness may sometimes miss the mark. Even though they may support or encourage kind acts, these acts may not necessarily result in the intended increase in well-being—of the actor or the recipient. Sharing a homemade brownie with a colleague who is on a strict diet may trigger guilt if they break their diet by accepting the brownie or make them anxious about the effect the brownie will have on their health. If they choose not to indulge, you may feel disappointed that they did not accept it. Existing kindness interventions do not provide actors guidance in performing a suitable act of kindness or ensuring that the act is beneficial to both parties. There is little guidance for designers to develop interventions that guide the actor in performing the “right” acts of kindness, i.e., acts that enhance well-being for both the

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actor and the recipient. Therefore, we want to explore the factors that influence kindness experiences to inform both future research and the practice of designing kindness interventions.

To explore these factors, we conducted a diary study and a workshop. The goal of the diary study was to explore how both actors and recipients experience everyday acts of kindness. By capturing these experiences through a diary study, the research aimed to identify the factors that influence the outcomes of kind acts for both parties. This understanding was intended to provide explorative insights to inform future research and design practice on interventions that can better support meaningful and beneficial acts of kindness in everyday life. Next, we conducted a workshop to explore how the identified factors might inform kindness intervention design. Specifically, it aimed to gain insights into the usefulness and practicality of these factors for designers during ideation and concept development. By involving design students in activities such as brainstorming, the workshop sought to explore how factors might be applied in practice, understand challenges faced in applying them, and gather suggestions for improving their clarity and applicability. The ultimate objective was to gain insights into how these findings might support the creation of impactful and well-designed kindness interventions.

2. Background

While performing acts of kindness is considered an effective strategy to increase well-being (see Curry et al. [3] for a review), the impacts on well-being can vary: helping others and performing acts of kindness can have less favorable effects on well-being (e.g., Refs. [4,5]). Previous research on the effects of acting kindly has identified a number of factors that explain the positive or negative impact of some acts of kindness on actor or recipient experiences.

2.1. Factors influencing actor experiences

The actor's motives [4], the outcomes of acting kindly [5–8], the frequency and variety of performing kind acts [9], and the actor's personality and other social relationship factors [5] impact the actor's well-being. Helping someone voluntarily increases the actor's well-being whereas helping out of obligation harms the positive impacts [4]. The actor's perceptions of who benefits from the act influence actor well-being [6], with cultural differences in whether self-benefit or recipient-benefit contributes more to well-being. Actors benefitted from acting kindly when the act had the desired effect [7]. Positive recipient responses can also boost actor well-being [5,8]. Receiving grateful responses from the recipient in return for acting kindly boosts actor well-being [8].

Performing the same kind act too frequently harms the happiness benefits of being kind [9]. Balancing other-oriented and self-oriented kind acts may lead to greater well-being gains [10]. Introversion and other social relationship factors can lead to negative effects of acting kindly on well-being [5], which Fritz and Lyubomirsky [11] attribute to low person-activity fit.

2.2. Factors influencing recipient experiences

Fewer studies have explored the impacts of receiving kindness on recipient well-being. The actor's motives [4,12,13], attractiveness of the received gift [13] or help [4], and perceived threat of the help [14] impact recipient well-being and responses to receiving kindness. Perceiving that the actor voluntarily helped the recipient leads to greater well-being, which is attributed to feeling closer to the actor, feeling cared about by them, and the satisfaction of psychological needs [4]. Positive perceptions of the gift giver's (i.e., actor's) intentions lead to greater recipient well-being [13]. Similarly, recipients respond positively when the actor acts out of positive feelings for the recipient and out of a desire for a future relationship with the recipient [12]. Recipient

perceptions of the kind act contribute to recipient well-being [4,13]. Receiving attractive gifts increase the recipients' well-being [13]. Recipients reported greater well-being when receiving more help from actors [4].

Recipients respond negatively to help when they feel threatened by it [14]. This threat is attributed to recipient characteristics and their judgements about the actor and the help itself [14–17]. Recipients who receive help from a peer experience a greater threat to one's self-esteem than when being helped by a non-peer [15]. They react more negatively to help given by out-group members when there was a low need for help than to help given by in-group members when there was a high need for help [16]. Recipients also respond negatively when they receive help with something that is strongly tied to their own ego [17].

2.3. Limitations in existing research

Previous research on the relationship between acts of kindness and well-being has identified various factors that explain the effect of a kind act on the actor's and the recipient's well-being. However, it is unclear whether this knowledge is useful for designing interventions that foster beneficial acts of kindness in everyday contexts.

One limitation of existing knowledge about the impacts of kindness is its focus on one person's experience in isolation. Previous research (except for Weinstein and Ryan [4]) has focused solely on the actor's or the recipient's well-being. However, there are interdependencies between actor and recipient experiences of kindness (e.g., recipient responses influencing actor well-being [5,8]). Therefore, it is worthwhile studying both parties to gain a deeper understanding of the impacts of kindness.

Another limitation is due to the scope and methodology employed in prior studies. Previous research often studied a specific type of act of kindness (e.g., help [4,12,14–17] or prosocial spending [13]). Therefore, some factors unique to other types of acts (e.g., giving compliments or emotional support) may not have been identified. Additionally, it's uncertain whether the factors that affect the impacts of helping or prosocial spending also play a role in experiences of other types of acts. Kindness was often assessed using self-reported responses to scenarios of acts of kindness or using prosocial measures such as the Dictator Game. Studies exploring the impacts of kindness behaviors often took place in controlled or lab environments or involved researcher instructions to act kindly to measure the impacts. The intricacies of the impacts of acting kindly on both parties in everyday settings are not fully understood.

3. Exploring actor and recipient experiences of acts of kindness

Considering the limitations identified in section 2.3, we took an explorative approach to gain a broad understanding of experiences of acts of kindness in everyday contexts. Given the limited and fragmented knowledge base, more targeted approaches (such as controlled experiments testing specific factors) would be premature; we lack sufficient understanding of the relevant variables and their interactions to design such studies effectively. An exploratory approach allows us to broadly map the landscape of factors that determine whether acts of kindness result in positive or negative experiences for both actors and recipients, and to understand how these factors interact in everyday contexts to influence well-being outcomes. This explorative knowledge could provide insights to inform future research on kindness interventions and guide the development of more nuanced approaches to intervention design.

3.1. Method

An experience sampling method, in which data from self-reported experiences were collected in an online diary, was used [18]. This methodology enabled 1) participants to share vivid details about their experiences, 2) data to be captured as it occurs, and 3) us to study acts of

kindness as they are experienced in an everyday setting.

Participants: Twenty-five participants were recruited of which 20 completed the study. Participants were predominantly female (16), from Europe (11) and North America (5), and aged 26–35 years (8). Participants were recruited via social media and were eligible to participate if they met the following criteria: motivated to participate; over 18 years of age; consistent access to a laptop or smartphone; proficient enough in English to give reflections on kindness. Participants could enter a raffle to win one of three 30-euro gift vouchers upon completing the study. Since acts of kindness are not elusive and are part of daily interactions, no further restrictions were placed on the sample.

Procedure: An online diary study on the Unipark survey platform was used to collect data over the course of seven days. Each morning, participants received an email that explained the day's task and provided the link to the diary to document the task. Each evening, participants received a reminder to complete the task for that day. Participants were prompted to record their act of kindness soon after it occurs or to make a note of it, so they did not forget details of their experience. They were shown a simple version of the definition of acts of kindness each time they wanted to make a record: *An act of kindness is an act in which you voluntarily try to be very nice or extra friendly towards another person. This means that these are acts that go beyond common decency and beyond what you consider to be the "right" thing to do or the "right" way to behave towards others (beyond your social norm).*

Participants only recorded acts of kindness that they either performed or received during the seven-day period. By means of focused open-ended questions, participants reflected on both their own experiences and those of the other person. They were prompted to reflect on the act's triggers, their (and the other person's) thoughts and feelings due to the act, and situational factors that influenced these feelings. In addition to these reflections, participants also rated their happiness as a result of the kind act ("How happy did you feel immediately after [performing/receiving] this act?") and how happy they believed the other person to be as a result ("How happy do you believe the other person felt as a result of [receiving/performing] this act?"). Both momentary happiness ratings were measured on a single item five-point scale (1 very unhappy; 2 unhappy; 3 neutral; 4 happy; 5 very happy). The scale labels were shown alongside smiley icons corresponding to each label. The recorded reflections were first-hand accounts of the participants' own experiences, and their beliefs or expectations of the other person's experiences. By means of closed-ended questions, participants provided key facts about the acts in terms of how and when it occurred and who the other person was.

Analysis: The analysis was conducted in three phases: 1) identifying experiences of performing and receiving kind acts and factors influencing these experiences, 2) exploring individual factor effects, 3) exploring overall effects on experiences of kind acts.

Phase 1) The diary entries were analyzed using the inductive thematic analysis approach described by Braun and Clarke [19]. Prior to analysis, the entries were screened to ensure that the recorded acts of kindness fit the scope of the study. Excerpts explicitly describing experiences and their perceived causes were extracted for analysis. This ensured that aspects which might not have been noticed by the actor or recipient or might not be relevant to one's experiences (i.e., purely factual aspects) were excluded. Next codes were assigned, and code labels were formulated based on the participant's words. Codes were then reviewed and revised to form an initial list of codes. These were then compared and clustered to generate themes which correspond to the factors influencing experiences of kind acts.

The momentary happiness ratings and the emotions reported by participants were analyzed to give insight in actor and recipient experiences of acts of kindness. Momentary happiness ratings above 3 were coded as "happy", ratings below 3 were coded as "unhappy", and ratings of 3 were coded as "neutral". Codes were assigned for the actor's and the recipient's momentary happiness ratings per act of

kindness. Emotions reported by participants were coded and categorized according to PANAS-X [20]. Other emotions were coded in the participant's words and categorized according to PANAS-X where possible. Codes that did not correspond to a PANAS-X emotion category, e.g., feeling normal, were clustered based on conceptual similarity.

Phase 2) Individual factor impacts were explored during the coding stage by reviewing each corresponding excerpt. Impacts were assessed based on how favorably (or unfavorably) the participants appraised the act and its factors and whether the factor co-occurred with a positive (or negative) emotion or momentary happiness rating. Code labels reflected the positive or negative impact.

Phase 3) Acts of kindness with positive or negative impacts on actors and recipients are examined to explore how the factors co-occur with positive or negative experiences.

We report on qualitative findings as the study's objective was to explore factors that contribute to experiences of kind acts rather than determine factor importance and strength. This enabled us to understand the nuances of experiences of kind acts.

3.2. Results

Participants recorded 143 acts of kindness and reflections over the course of the study. Six were removed as they did not meet the criteria of being directed towards a specific other person. The omitted acts were acts of charity, acts of self-kindness, and pro-environmental acts (e.g., picking up trash from the streets). The remaining 137 acts of kindness, of which 68 acts were performed and 69 acts were received, were included in the analysis. Participants each recorded three to 17 acts of kindness over the course of a week.

3.2.1. Actor and recipient experiences of acts of kindness

Experiences of acts of kindness were based on the momentary happiness ratings and emotions reported by the participants.

Momentary Happiness. Most of the collected acts of kindness resulted in momentary feelings of happiness for both parties (102 acts, see Table A1). However, we also found a few cases that resulted in feeling neutral or even feeling unhappy.

Emotions. Participants did not consistently report the emotions either party experienced. In the 91 cases with reported emotions, actors and recipients experienced a wide range of positive emotions (e.g., compassion, joviality), negative emotions (e.g., guilt, dissatisfaction), and neutral emotions (e.g., indifference, feeling "normal") in response to the act of kindness. The emotions were experienced in relation to the act itself or the other person (e.g., feeling gratitude for having the actor in one's life). A few emotions were not felt in response to the act but were experienced leading up to or during the kind act (e.g., anxiety due to Covid-19, feeling relaxed while listening to good music when doing a good deed). These emotions related to the actor's and recipient's emotional state which are discussed in section 3.2.2.1.

Most acts of kindness resulted in only positive emotions for both actor and recipient (53 acts, see Table A2). Fewer led to only negative or only neutral emotions for either person. However, actors and recipients also experienced mixed emotions due to the act of kindness (combinations of positive, neutral, and/or negative emotions).

3.2.2. Factors influencing actor and recipient experiences

Performing a kind act did not always lead to a positive experience for both parties. Negative experiences and mixed emotions due to the act were also possible.

A closer examination of the actor's and recipient's experiences of kind acts revealed factors that contribute to those experiences. Three overarching types of factors and thirteen factors on a more detailed level appeared to play a role in actor and recipient experiences of kind acts. The types of factors relate to an act's context (four factors),

characteristics (six factors), and outcomes (three factors). We provide a description of each type and its respective factors below. An overview of the factors and examples illustrating their impacts on the actor and recipient is shown in [Appendix B](#).

3.2.2.1. First type of factors: context of acts of kindness. The *context of the act of kindness* relates to pre-existing states and conditions surrounding the act.

Affective State. The *affective state* consists of the emotions and moods experienced independently of the act of kindness by the actor, recipient, or bystanders. Being in a good mood was associated with positive emotions for the recipient, whereas being in a bad mood appeared to contribute to negative emotions for the actor. Witnessing others' good mood had a positive impact on both (Quote 1; see [Table A3](#) for an overview of all diary quotes), whereas seeing the recipient's negative emotional state elicited negative emotions in the actor.

Circumstances. The *circumstances* refer to the individuals' state, environment, and interactions when the act occurred. Pleasant circumstances were typically associated with positive emotions for both parties, while negative circumstances were linked to negative emotional impacts for both. Recognizing others' negative circumstances had similar negative effects on both (Quote 2).

Relationship. The *relationship* between actor and recipient refers to the state and importance of the relationship and perceptions of the other person. In our data, good and close relationships and good impressions of the other appeared to have a positive effect on both parties. Distant and negatively perceived relationships and bad impressions of the other appeared to have negative impacts. However some exceptions existed. Receiving kindness from strangers or from selfish actors was sometimes experienced positively due to unexpectedness (Quote 3). Likewise, receiving kindness from family was less impactful due to family frequently acting kindly.

Attitude. The *attitude* of each individual refers to perceptions of the other person's behavior (e.g., eagerness or reluctance to help, cheerful or non-judgmental demeanor). We observed a positive effect on both parties when the other person had a positive attitude (Quote 4), whereas negative attitudes appeared to have a negative effect.

3.2.2.2. Second type of factors: characteristics of acts of kindness. The *characteristics* of the act of kindness refer to factors relating to perceptions made about the act itself and its qualities.

Unexpectedness. The *unexpectedness* of the kind act refers to its surprising and spontaneous nature. Generally, unexpected acts appeared to have a positive effect on the actor and recipient, while expected acts were associated with neutral emotions for both (Quote 5). Performing an act one had never done before had a negative impact, likely due to the actor feeling out of their comfort zone (Quote 6).

Timeliness. The *timeliness* of the act of kindness relates to its timing and convenience (e.g., when actor and recipient needs harmonized). Timely and convenient acts were experienced positively by both parties, whereas untimely and inconvenient acts were experienced negatively. The effect of the perceived timeliness was in some cases amplified by one's affective state. A positive effect was seen when the recipient received the act while in a negative state or when facing a difficult time, i.e., when they needed it most (Quote 7).

Fit with individual. The kind act's fit pertains to its personal significance and its alignment with individuals' personality, preferences, and needs. Generally, well-fitting acts had positive impacts on both parties, while poorly fitting acts had negative impacts. Yet in one case, performing a meaningful act caused insecurity for the actor due to a sense of vulnerability (Quote 8).

Investment. The actor's *investment* relates to the investment's level and appropriateness. Generally high investments of time, effort, and money had a negative effect on actors but a positive effect on recipients. Low investments had a positive impact on the actor. Investments of skill

and creativity (e.g., handmade cards) had positive effects on both. This form of investment could be a means of personal or other need fulfillment (i.e., spending time doing what you love). Inappropriate investments that are too high or low had a negative effect on both parties (Quote 9), whereas worthwhile investments had a positive impact on the actor.

Intentions. The *intentions* refer to actor and recipient perceptions of whether the act was performed voluntarily and with good intentions. Generally, perceiving good intentions had a positive effect on both parties. Doubting actor intentions or perceiving acts to be driven by pressure or negative intentions had negative impacts on both. For example, believing a gift of soap was given out of criticism had a negative effect on the recipient (Quote 10).

Prioritizing the recipient. Acting in a way that *prioritizes the recipient* refers to placing the recipient ahead of one's own priorities. Prioritizing the recipient generally had a positive effect on both parties, while not prioritizing the recipient had negative impacts on the actor (Quote 11).

3.2.2.3. Third type of factors: outcomes of acts of kindness. The *outcomes* of an act of kindness refer to perceptions of the act's success, its immediate consequences, and the responses to the act.

Anticipated success. The *anticipated success* of a kind act relates to perceptions of how the act progressed (i.e., going well or not) and whether it would meet standards and expectations. Anticipating success (e.g., the act is going well or would meet expectations) had a positive impact on both parties, while anticipating failure (e.g., the act is interrupted, would not meet standards, or could lead to negative consequences) had negative effects on both (Quote 12).

Consequences. The kind act's *consequences* refer to its immediate self-esteem, emotional, social, and tangible consequences. *Self-esteem* benefits related to being acknowledged, being a kind person, and making an impact. *Emotional* benefits related to feeling supported or cared for and being relieved of a negative state. *Social* benefits included having faith in humanity, gaining a positive reputation, having social contact, and strengthening one's relationship with the other. *Tangible* benefits related to whether the act satisfied a need (e.g., solved a problem) or provided an added bonus (e.g., saving money in a sale). Self-esteem, emotional, social, and tangible benefits generally had positive impacts on both parties. Few negative consequences were reported. Receiving help threatened the recipient's self-esteem in one case (Quote 13). A lack of social contact from being unable to act kindly in person had a negative effect on the actor in another case.

Responses to Acts of Kindness. The responses to a kind act pertain to the recipient and bystander reactions and their appropriateness. We found that positive reactions had positive effects on the actor, while negative responses had negative effects. Insufficient or inappropriate responses had a negative impact on both parties (Quote 14).

3.2.3. Interplay of factors

Individually, each factor could have a positive, negative, or neutral impact on both parties' experience. However, a complex interplay of factors with opposing effects determined a kind act's overall impact. Factors with a positive impact (i.e., positive factors), factors with a negative impact (i.e., negative factors), or a combination of both were present in acts with an overall positive or negative impact on both parties. Simply having positive or negative factors present was not sufficient to explain the actor's and recipient's experience.

For example, giving a colleague advice on a CV led to unhappiness and experiencing only negative emotions. A poor relationship with the recipient (*relationship*), being too nice (*investment*), insufficient reciprocation by the recipient (*response*), and fearing being taken advantage of (*anticipated success*) overshadowed the positive impact of giving beneficial help (*consequences*). In another case, receiving a soap pump from a date led to happiness despite preferring a different kind of soap (*fit*) and

doubting the intentions behind the gift (*intentions*). The positive impact of receiving an unexpected gift (*unexpectedness*) from someone the participant did not know well (*relationship*) outweighed these negative impacts.

In the rare case of kind acts leading to negative experiences (i.e., unhappy ratings and experiencing only negative emotions) for both parties, several negative factors operated simultaneously. Negative factors related to the (recipient's) circumstances, relationship, fit, investment, anticipated success, and (recipient's) responses contributed to actor and recipient negative experiences. These negative factors overshadowed the positive factors observed in instances of negative actor experiences. No positive factors were reported in cases of negative recipient experiences. The impact of individual factors was not always consistent. A factor with a positive impact in one case may have a negative impact in another, depending on other factors. For example, distant relationships typically had negative impacts, yet receiving kindness from strangers sometimes was experienced positively due to unexpectedness ("It was very positively surprising from a stranger!"). Expected acts could have contradicting effects depending on the actor's or recipient's anticipations of success while waiting to carry out a planned act or receive an act one was aware of. In sum, the examples above suggest that the effect of each factor also depends on the manifestation of other factors.

3.3. Discussion

The results indicate that the influence of acts of kindness on happiness is complex and nuanced. Actor and recipient experiences are influenced by numerous interacting factors relating to the context, characteristics, and outcomes. This complex interplay explains why, despite acts of kindness generally being experienced positively, negative or mixed emotions are also possible. This observation adds nuance to the general proposition that acts of kindness result in happiness for the individual performing the act (e.g., Refs. [3,21]).

While many individual factors align with previous research (see Table 1 for an overview of the corresponding factors), the present study makes several unique contributions that extend beyond simply cataloging factors. First, we provide the first systematic exploration of kindness from both actor and recipient perspectives simultaneously in everyday contexts. Previous research has predominantly examined either the actor or recipient in isolation, missing the interdependent dynamics that shape kindness experiences. Second, our findings reveal the complex, inconsistent nature of factor interactions in natural settings. Unlike controlled studies that examine single factors, we observed that positive and negative factors routinely co-occur within the same act, and that identical factors can produce opposite effects depending on context and other co-occurring factors. Third, we demonstrate that the same act of kindness can simultaneously benefit one party while harming another, challenging the common assumption that any kind act will enhance well-being for both parties. These insights into the systemic complexity of everyday kindness provide a more nuanced understanding than previous factor-based approaches, revealing kindness as a complex social phenomenon where outcomes emerge from dynamic interactions rather than simple additive factor effects.

Few inconsistencies with prior research were observed. Self-esteem threats [14] and poor actor personality-activity fit [5] were rarely reported, while self-esteem benefits and good recipient fit were frequently found to enhance experiences.

Some factors contradicted each other or had opposing effects on happiness. This can be due to their relevance varying under certain conditions and at certain points in time. Different expectations towards the acts may also play a role. For example, *anticipated success* likely applies more to planned or in-progress acts, while *unexpectedness* likely applies more to spontaneous acts. However, both factors can also be relevant to the same act at different stages. *Unexpectedness* can influence happiness when finding out that a friend sent a surprise gift, and

anticipations of success can play a role while waiting to receive it.

A key implication of our findings is being aware that simply performing *any* kind act does not guarantee happiness. Rather, orchestrating the multiple factors in such a way that the act has the intended effect is a complex balancing act not fully under the control of the actor. Not only does this require a sensitivity to the recipient's needs [22], it calls for an understanding of how the factors can best be coordinated to achieve the desired effect. Thus, an attentive configuration of the factors that lead to happiness should be considered when designing kindness interventions. Merely optimizing for one factor runs the risk of adverse and unintended effects caused by the others.

4. Exploring factor potential for designing kindness interventions

The diary study gave insight into factors that influence actor and recipient experiences of acts of kindness. Next, we wished to explore the potential that the identified factors might have for designing kindness interventions. Thus, we engaged designers in a workshop. We intended to explore the following practice-focused aspects from the designer's perspective: the perceived usefulness of these factors (sub-objective 1), which factors might be most applicable in practice (sub-objective 2), and the challenges faced when applying these factors in practice (sub-objective 3).

4.1. Method

A 3-h ideation workshop was conducted with four participants enrolled in a bachelor or master level design or human-computer interaction program. Participants prepared for the workshop by completing a sensitizing activity intended to foster introspection and empathy for actors and recipients. The sensitizing activity consisted of two tasks: 1) reading about the factors and selecting two inspiring factors, and 2) doing three good deeds within a day while paying attention to any kindness received that day and reflecting on one's experiences. Participants shared their experiences with each other during the workshop after a short introduction about kindness, kindness interventions, and the role of the factors.

The main workshop activities consisted of an ideation activity, a group discussion, and a survey. The problem statement "How can the intervention help the actor perform a more appropriate act of kindness?" was

Table 1

Overview of factors identified in present study and corresponding factors in previous research.

| Factors Present Study | Corresponding Factors Previous Research | |
|---------------------------|--|--|
| | Factors impacting actor | Factors impacting recipient |
| Affective State | | |
| Circumstances | | |
| Relationship | | |
| Attitude | | |
| Unexpectedness | | |
| Timeliness | | |
| Fit with Individual | person-activity fit [11]; personality [5] | gift attractiveness [13] |
| Investment | | amount of help given [4] |
| Intentions | actor motives [4] | actor motives [4,12] and intentions [13] |
| Prioritizing Recipient | | |
| Anticipated Success | achieving desired effect [7] | |
| Consequences | benefit of act [6] | close relationship [4]; psychological need satisfaction [4]; self-esteem threat [14] |
| Responses | recipient responses [5,8] | |

the focus of the ideation efforts. Participants used the factors to generate ideas for kindness interventions based on existing examples. They could choose from various digital and analog interventions that support a daily practice of kindness: kindness apps, calendars, dice, coins, and cards. Participants reformulated their problem statement to reflect their chosen factors and example and used this as a starting point in the first ideation round. Separate lists of the factors (see [Appendix B](#)) and intervention examples were provided as a reference to aid participants in reformulating their problem statement and generating ideas.

The ideation activity consisted of five idea generation rounds which implemented a brainwriting approach. Participants spent 5 min per round generating three ideas. They documented their ideas on ideation templates and indicated their sources of inspiration (i.e., intervention example, factor, and actor or recipient experience). Participants were asked to limit one idea per template. After having generated ideas, participants passed their ideas to the person beside them. The following rounds began with participants reading their neighbor's ideas before generating new ones. Participants were reminded to avoid criticism while generating ideas, to express as many ideas as possible, and to build on each other's ideas.

After the ideation activity, the ideas were displayed on pinboards. Participants each received five stickers to vote for their favorite ideas. They were free to decide how to allocate their stickers. The group discussion focused on participants' evaluations of the ideas they voted for and their use of the factors. The workshop ended with a paper-based survey to get input on participants' experiences implementing the factors. The survey consisted of six open-ended questions focusing on their perceptions of the factors, challenges experienced with the factors and the workshop, and suggestions for improvement.

Analysis: Fifty-five ideas were generated of which two were excluded from further analysis as they were either unclear or incomplete. Participants each generated 10 to 15 ideas for kindness interventions. Twelve ideas received stickers, of which one idea received three stickers and six ideas received two stickers (each from different participants). The discussion and survey responses gave insight into the perceived usefulness of the factors (sub-objective 1) and challenges faced when applying them (sub-objective 3). The generated ideas gave insight into which factors were relatively more applicable in practice (sub-objective 2).

Workshop outputs were analyzed through three approaches: 1) quantitative analysis of idea frequencies by factor, intervention type, and experience, followed by conceptual clustering; 2) qualitative analysis of the discussion transcripts, using coding to identify themes relevant to the research objectives; and 3) survey analysis through coding responses into categories (positive input, challenges, improvement suggestions) with further sub-categorization.

4.2. Results

4.2.1. Sub-objective 1: perceived usefulness of the factors

Participants generally responded positively to the factors and believed they were beneficial to designers and to the intervention user.

Gain new knowledge about kindness. The factors deepened participants' understanding of the complexity of kind acts by making them aware of the factors that impact actor and recipient experiences of kindness. Learning about the factors and seeing each other's ideas gave participants new perspectives on designing for kindness. They saw the factors and the workshop as an opportunity to explore a new direction in design.

Support ideation. Participants recognized the factors as a helpful tool to generate novel ideas. The factors gave structure to the ideation task and helped direct their efforts. Combined with the high-paced brainwriting rounds and subdivision of tasks, the factors supported generating initial ideas.

Benefits intervention users. In addition to being useful to designers, participants believed that the factors also benefit intervention

users. The factors enable designers to understand the users so that they can design more impactful interventions and give users a better experience.

Implementing multiple factors. Participants noted that implementing individual factors is insufficient when designing interventions. Rather, multiple factors should be implemented to provide a better experience for both parties. They suggested combining ideas based on a single factor into a more comprehensive intervention. In reviewing the selected ideas, they noticed that many ideas actually reflected multiple factors despite being inspired by a single factor.

4.2.2. Sub-objective 2: Differences in practical applicability of the factors

All factors were applied in the workshop. The factors inspired ideas for kindness interventions that target either actor, recipient, or both parties' experiences. The factors inspired ideas for each of the intervention examples provided. Most ideas (40) were inspired by single factors, while a small portion were based on multiple factors (11 based on two factors, two based on three factors). The second type of factors (characteristics) led to the most ideas (36 ideas) whereas the third type of factors (outcomes) led to the least ideas (13 ideas). Factors inspired on average five ideas, with *fit with individual* being the most inspiring (11 ideas) and *prioritizing the recipient* being the least inspiring (two ideas). Participants predominantly generated ideas for kindness apps (19) and interventions targeting only actor experiences of acting kindly (27). Factor implementation varied across the intervention formats and experiences. An overview of the frequency of ideas generated for each factor per intervention format and experience is shown in [Table 2](#).

Both context and characteristic factors were applied to all intervention formats. These factors seemed useful regardless of the intervention format. Outcome factors did not inspire any ideas for kindness cards or coins, indicating limited applicability. Most factors were applied to three different intervention examples. Two factors were applied to only one type of intervention: *prioritizing the recipient* inspired ideas for calendars and *anticipated success* inspired ideas for apps. *Fit with individual* was the most versatile factor, inspiring ideas for all five intervention formats.

All three types of factors inspired interventions targeting each type of experience: only actor experiences, only recipient experiences, and both parties' experiences. Most factors were implemented in ideas targeting two types of experiences. *Unexpectedness, investment, anticipated success*, and *responses* inspired ideas targeting actor experiences and both parties' experiences. Implementing *timeliness, intentions*, and *prioritizing the recipient* resulted in ideas targeting only actor experiences and only recipient experiences. *Circumstances* and *relationship* inspired interventions targeting recipient experiences and both parties' experiences. However, *attitude* only produced ideas targeting one type of experience, actor experiences. Three factors (*affective state, fit with individual*, and *consequences*) inspired ideas targeting all three types of experiences. These factors seemed the most useful for generating ideas that consider actor and recipient experiences.

Two main categories of ideas emerged in the workshop: interventions that promote appropriate acts and interventions that enhance experiences of kind acts. These categories are described below and illustrated with examples from the workshop which are depicted in [Fig. 1](#). Most factors inspired ideas from both categories. *Affective state* and *circumstances* only inspired interventions promoting appropriate kind acts while *responses* only led to interventions that enhance experiences of kindness.

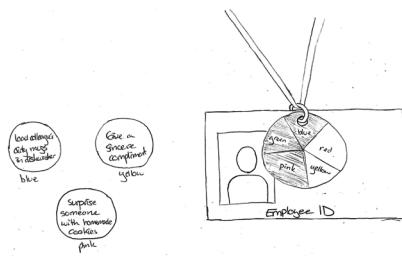
Interventions promoting appropriate acts of kindness. Interventions that foster appropriate acts of kindness were customized to both parties' contexts, providing personalized suggestions of acts based on their preferences, circumstances, relationship, past experiences, or mood. Suggestions were also based on actor ability or were tailored to specific settings (e.g., good deeds for the office). For example, *Mood Metrics* gives recommendations of acts of kindness tailored to the recipient's mood based on users' daily mood logs. Actors can check other users' moods and carry out one of the suggested acts. Other ideas

Table 2

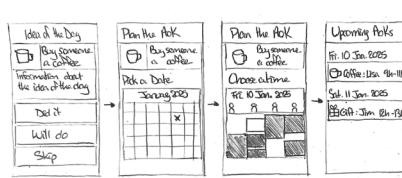
Frequency of factors applied across intervention example and experience (N = 53 ideas).

| Factor (total ideas) | Intervention Example | | | | | Experience | | |
|--|----------------------|----------|-------|-------|------|------------|-----------|------|
| | App | Calendar | Cards | Coins | Dice | Actor | Recipient | Both |
| <i>First Type: Context of Acts of Kindness (19)</i> | 6 | 4 | 5 | 2 | 2 | 7 | 5 | 7 |
| Affective State (5) | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 3 |
| Circumstances (4) | 0 | 2 | 1 | 1 | 0 | 0 | 2 | 2 |
| Relationship (4) | 1 | 0 | 1 | 1 | 1 | 0 | 2 | 2 |
| Attitude (6) | 2 | 1 | 3 | 0 | 0 | 6 | 0 | 0 |
| <i>Second Type: Characteristics of Acts of Kindness (36)</i> | 10 | 11 | 2 | 12 | 1 | 19 | 9 | 7 |
| Unexpectedness (4) | 2 | 1 | 0 | 1 | 0 | 2 | 0 | 2 |
| Timeliness (7) | 1 | 6 | 0 | 0 | 0 | 4 | 2 | 0 |
| Fit with Individual (11) | 4 | 1 | 2 | 3 | 1 | 5 | 4 | 2 |
| Investment (6) | 2 | 1 | 0 | 3 | 0 | 3 | 0 | 3 |
| Intentions (6) | 1 | 0 | 0 | 5 | 0 | 4 | 2 | 0 |
| Prioritizing the Recipient (2) | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 |
| <i>Third Type: Outcomes of Acts of Kindness (13)</i> | 9 | 1 | 0 | 0 | 3 | 8 | 1 | 4 |
| Anticipated Success (3) | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 1 |
| Consequences (6) | 3 | 0 | 0 | 0 | 3 | 3 | 1 | 2 |
| Responses (4) | 3 | 1 | 0 | 0 | 0 | 3 | 0 | 1 |
| Total | 19 | 12 | 6 | 12 | 4 | 27 | 12 | 13 |

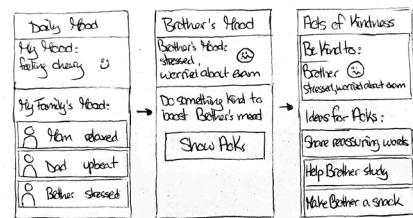
Note: Timeliness was applied to one idea in which the targeted experience was not indicated on the ideation template.

Find your Match

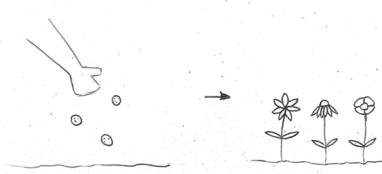
Find your Match includes a color-coded badge indicating the wearer's preferred kind acts and a set of color-coded kindness coins to help actors perform acts aligned with the recipients' preferences.

Kind Sync

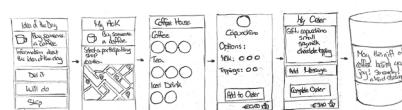
Kind Sync incorporates a collaborative calendar and scheduling feature to help actors perform acts of kindness at the right time.

Mood Metrics

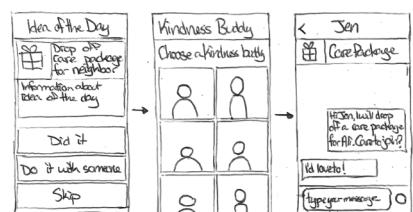
Mood Metrics helps actors choose suitable acts of kindness based on the recipient's mood.

Seeds of Kindness

Seeds of Kindness are kindness coins containing seeds that reward actors with a flower for every act of kindness they perform.

Unexpected Treat

Unexpected Treat is an app where actors can (anonymously) order surprise treats for strangers to enjoy when they visit local shops and cafés.

Kindness Buddy

Kindness Buddy helps actors find a friend to perform an act of kindness together.

Fig. 1. Examples of ideas promoting appropriate acts of kindness (top) and ideas that enhance experiences of acts of kindness (bottom) generated in the workshop. Visualized by the first author.

allowed both parties to add their own suggestions so that the suggested acts are personally relevant.

Some interventions supported planning timely acts of kindness. For example, *Kind Sync* incorporates a shared calendar and planning feature, enabling actors to schedule kind acts at times that are convenient for the recipient. Other interventions provided actors with multiple options of good deeds to choose from each day, enabling actors to select the act that best suited them. For example, *Find your Match* consists of multiple color-coded coins with good deeds printed on them. Actors are free to choose which act to perform, and the colors aid in selecting the type of act they prefer (e.g., giving compliments, gifting).

Finally, some inappropriate acts of kindness are unwanted by the recipient. Inspired by this, some interventions sought to match actors with willing recipients to ensure that the act is suitable for the recipient. *Find your Match* also comes with a color-coded badge worn by recipients which depicts the acts they want to receive. Actors can then choose an act of kindness based on the recipient's preferences. If an actor is keen to carry out a specific act, the badge also helps them find willing recipients.

Enhancing experiences of acts of kindness. Interventions that enhanced experiences of kind acts often maximized the act's positive impacts for both parties. Some ideas rewarded actors for acting kindly or triggered recipients to reciprocate the act or give the actor (positive) feedback. Other ideas created moments of surprise and anticipation for recipients. *Seeds of Kindness* consists of coins embedded with seeds. After carrying out a good deed, the actor plants the seed and is rewarded with a flower for each act they perform. *Unexpected Treat* enables actors to buy an unsuspecting recipient a treat at participating shops and cafés to create a moment of surprise for them. Other interventions also created kindness ripple effects in which the recipient pays the kind act forward, the actor inspires others to be kind, or positive experiences are created for bystanders and other passers-by.

Some interventions that enhanced experiences were distinctly social. These enabled actors to do good deeds with friends or share their kindness experiences with others. *Kindness Buddy* lets actors find a friend to perform an act of kindness with, making the experience of being kind more enjoyable. Others cultivated the actor's mindset before acting kindly to ensure they would be in the right mood and enjoy the experience of being kind more. Some ideas also intended to stimulate reflection on experiences of acting kindly. These often incorporated means of tracking acts of kindness to prompt reflection. Seeing the flowers that grew from the *Seeds of Kindness* coins can spark reflection on the performed acts.

4.2.3. Sub-objective 3: Challenges in applying the factors

Participants faced some challenges with the workshop and ideation task. Despite enjoying the fast pace of the ideation task, participants found generating novel ideas under time pressure and being unable to reflect on their ideas challenging. One participant struggled with motivating genuine acts done with good intentions without resorting to rewards and incentives when generating ideas.

Other challenges faced during the workshop related to implementing the factors. Participants found it difficult to take all relevant factors into account while generating ideas. One participant noted that this required high levels of designer empathy for the actor and recipient.

Some factors were more challenging to implement than others. Participants remarked that choosing the right factor to implement when generating ideas was difficult. Context and characteristics factors were easier to implement than the outcome factors. The former two types of factors seemed more relevant to most kind acts. One participant noted that anticipating the outcomes of kind acts and subsequently implementing these factors in the design was difficult. *Anticipated success* was especially challenging due to different interpretations of the meaning of success in the context of kindness.

A key aspect that likely contributed to difficulties in choosing a

fitting factor was that participants did not fully understand the factors. Some factors also seemed to overlap, with participants struggling to differentiate them. However, the examples of the factors helped one participant understand the factors. Participants recommended refining the factors to clarify their meaning and the distinction between them. One suggested reviewing the factors with the actors and recipients they will design for to help refine them. Participants also wished to know more about how the factors influence everyday experiences and when they are relevant. Incorporating these suggestions could address challenges related to misunderstanding the factors and choosing the right ones to implement.

Implementing the factors while ensuring the intervention can be used by all was not a simple endeavor. Due to the difficulty of adapting to individuals' differing needs, participants emphasized the need for flexible interventions. These should provide users options and allow them to react spontaneously to ensure everyone achieves a positive and meaningful experience. Since perspectives of appropriate acts vary, participants believed that designers should consider these differences when designing interventions. They recommended designing interventions that allow users to choose suitable acts. Informing users of multiple options of acts, incorporating personalization (as in *Find your Match* and *Mood Metrics*), and enabling social support (as in *Kindness Buddy*) were seen as effective means of promoting appropriate acts. Participants believed that the intervention's format limited its ability to be used by all while also promoting appropriate kind acts and a long-term daily practice of kindness. Apps and calendars seemed the most adaptive and flexible, being easily integrated in users' daily routines. However, physical formats (e.g., dice, coins, and cards) seemed less practical, often requiring a dedicated time to use the intervention.

5. Discussion

Designers can only indirectly influence the identified factors and need to accept that full control over these factors is not possible. Instead, the exploratory framework serves to help designers better understand kindness dynamics to create more impactful interventions. The framework's usefulness was explored in a workshop with designers. The factors provided participants with new perspectives when designing for acts of kindness, though not all factors were equally practical. The most useful factors could be implemented across a variety of intervention types and addressed both actor and recipient experiences. Certain technologies may facilitate better integration of these factors in kindness interventions or give designers more influence over the factors.

While the factors provide initial support, designers need extra guidance when applying them to generate ideas. Although the factors inspired a variety of ideas, it is unclear whether they on their own are sufficiently inspiring for ideation activities. Designers likely require additional strategies to translate these factors into interventions that foster meaningful acts of kindness. Nevertheless, the wide range of generated ideas illustrates design's potential to promote acts of kindness. Beyond merely motivating and encouraging acts of kindness (see Refs. [23–25]), design can support performing acts of kindness that are appropriate, and even enhance the experience of performing them.

Notably, many participants created interventions targeting both parties' experiences, though this was not explicitly requested. Providing examples showcasing each factor's effect on both the actor and the recipient (see Appendix B) likely prompted this consideration. This observation has two implications. First, it suggests that knowledge about the other person's perspectives of acts of kindness can be a source of inspiration and lead to more appropriate acts of kindness being fostered by the intervention. Second, such knowledge may also be useful when designing interventions that support other types of behaviors that involve an exchange between two or more individuals (e.g., expressing forgiveness, social interactions, some forms of expressing gratitude).

5.1. Limitations

5.1.1. Limitations diary study

The diary study has several limitations. The predominantly young (aged 26–35 years), female, and Western sample limits the applicability of the framework to different age groups, genders, and cultures. The exploratory framework may not capture other demographic groups' experiences limiting its usefulness for supporting designers to understand the kindness dynamics of these groups. The findings provide only an indication of how factors impact happiness, based on qualitative data sometimes from few participants. Without quantitative data for particular effects, we also cannot determine the prevalence of the factors and their effects. Likewise, we cannot determine the relative importance of the factors for achieving a happy (or unhappy) outcome, nor can we quantify the effects of the multi-factor interactions. The findings serve as a starting point for further empirical examination to test the relationships between factors and between factors and happiness.

Negative experiences were rare in our data, but unreported negative acts of kindness might have existed if participants did not recognize them as acts of kindness. Kind acts resulting in indifference (i.e., neutral ratings and emotions) were also rare. Most reported acts were experienced positively by both parties, which could reflect either participant bias (assuming intention predicts the outcome) or people's implicit knowledge about performing effective acts of kindness. The absence of reported negative and neutral cases may inflate the positive impacts of acts of kindness, affecting the accuracy of the study findings. Feeling indifferent can point to habitual kindness. Neutral cases were associated with expected acts in our study. Participants rarely reported acts resulting in neutral emotions, likely due to the study's focus on acts that go beyond personal norms of proper conduct. Other acts of kindness that are performed more regularly may have been taken for granted and gone unnoticed.

Since participants were asked to report the effect of the act of kindness on both themselves and on the other person, we cannot assume that reports of the impact on the other person were accurate and complete representations of the actual impact. Participants might have misestimated the act's impacts on the other person or misidentified the factors contributing to this effect. This probably depended on various factors, such as how well they know the other person, their ability to empathize, and whether they interacted with them directly during the act. In these cases, the participants made judgements based on previous experience, their relationship with the other person, and the responses of the other person. Acts of kindness that did not occur face-to-face or were received sometime after the act was performed could have impacted the results in that the participant's assumptions were expectations of how the other person might react.

The study occurred during the COVID-19 pandemic, which likely affected the types of kind acts, their frequency, and how they were performed. Lockdown measures influenced who could be recipients, with face-to-face acts occurring mostly between cohabitants. The reported social interactions might be heightened due to social restrictions, and the general stress and uncertainty might have amplified the impact of receiving kindness.

5.1.2. Limitations workshop

The fast pace of the workshop may have overwhelmed participants, who had limited time to review others' ideas and generate their own. Allowing participants to choose from all 13 factors likely prevented them from fully immersing in any particular factor, resulting in somewhat generic insights. Restricting participants to fewer factors would have reduced the cognitive load and potentially yielded more nuanced feedback.

Although participants recognized the importance of implementing multiple factors, the workshop setup did not explicitly address their interplay. The majority of ideas were inspired by single factors, suggesting the factors were not leveraged to their full potential. Future

workshops should explicitly instruct participants to consider multiple factors and include activities that sensitize designers to how factors interact. Additionally the setup also did not address how individual factors with opposing effects on actor and recipient should be implemented. No solutions emerged that illustrate how such factors can be implemented while ensuring the act is beneficial to both parties. Future workshops should include activities to sensitize designers to how factors impact actors and recipients differently.

Limiting participants to specific examples likely constrained the range of concepts to small-format, personal interventions. Future explorations should include broader examples like public installations or services, or focus on developing interventions for specific contexts (e.g., airport waiting areas) to inspire a wider variety of solutions. Additionally, including designers from diverse backgrounds beyond product design and HCI could yield novel applications of the factors.

The exploratory framework's usefulness was evaluated in an ideation activity in a workshop context (described in section 4.1). The conditions in which participants applied the framework do not correspond to real-world design contexts. This limits the findings' applicability to contexts in which designers develop a real kindness intervention.

5.2. Future research

Future research can refine the factors to make them more understandable and useful to designers. While we know that these factors interact in complex ways, we need to better understand how they interact and their relative importance for well-being outcomes. Investigating the relationship between these factors and happiness across different contexts and acts of kindness would help designers prioritize which factors to implement.

A meaningful next step would be to implement the factors in designing a functioning kindness intervention. This can give insight in the practical value of the exploratory framework across the whole design process in real-world contexts and identify where additional support is needed.

6. Conclusion

We conducted an exploratory investigation into the factors that influence experiences of everyday acts of kindness for both actors and recipients, organizing these findings into an exploratory framework to inform intervention design. Through an experience sampling method, we found that kind acts are not always positive experiences for both parties, with outcomes affected by multiple inter-related factors. Our key contribution is demonstrating the complex, inconsistent nature of factor interactions in natural settings: the same factors can produce opposite effects depending on context and co-occurring factors. The implication is that designers need to attentively orchestrate these factors when designing kindness interventions. Our workshop exploration revealed that while the factors provide initial support to designers, additional support is needed. The exploratory framework gives designers nuanced insights into actor and recipient experiences of kindness that could inform more thoughtful kindness interventions.

Credit author statement

Michelle K. P. Johnson: Conceptualization, Methodology, Investigation, Formal Analysis, Writing – Original Draft, Writing – Review & Editing, Visualization.

Pieter M. A. Desmet: Conceptualization, Methodology, Writing – Review & Editing.

Haian Xue: Conceptualization, Methodology, Writing – Review & Editing.

Paul Hekkert: Conceptualization, Methodology, Writing – Review & Editing.

Anna E. Pohlmeier: Conceptualization, Methodology, Writing – Review & Editing.

Ethical statement

The research involved human participants and received ethical approval from the Human Research Ethics Committee at Delft University of Technology (ID numbers 1106 and 4810). Participation was voluntary. Participants were informed of study objectives and content prior to participation. They were free to withdraw from the studies at any time. Data was collected on the basis of informed consent.

Declaration of generative AI and AI-assisted technologies in the writing process

The authors used Gemini to edit self-written text for conciseness and clarity in preparation of this publication. The authors reviewed and edited the text as needed and take full responsibility for the content.

Appendix A

Table A1
Frequencies of Acts of Kindness Rated as Resulting in Feeling Happy, Neutral, or Unhappy

| | | Actor Happiness | | | Total |
|---------------------|---------|-----------------|---------|---------|-------|
| | | Happy | Neutral | Unhappy | |
| Recipient Happiness | Happy | 102 | 14 | 2 | 118 |
| | Neutral | 8 | 7 | 1 | 16 |
| | Unhappy | 1 | 1 | 1 | 3 |
| Total | | 111 | 22 | 4 | 137 |

Table A2
Frequencies of Acts of Kindness Reported to Result in Positive, Negative, or Mixed Emotions

| | | Actor Emotions | | | | Total |
|--------------------|------------------|------------------|------------------|---------------|---------------|-------|
| | | Positive Emotion | Negative Emotion | Mixed Emotion | None Reported | |
| Recipient Emotions | Positive Emotion | 53 | 2 | 15 | 14 | 84 |
| | Negative Emotion | 0 | 1 | 1 | 0 | 2 |
| | Mixed Emotion | 9 | 2 | 7 | 6 | 24 |
| | None Reported | 13 | 2 | 6 | 2 | 23 |
| Total | | 75 | 7 | 29 | 22 | 133 |

Note: Four cases resulted in reports of experiencing only neutral emotions (e.g., indifference, feeling "normal") of which three were instances of actors experiencing neutral emotions. These cases are excluded from the overview.

Table A3
Diary quotes organized by factor

| Factor | Number | Participant | Quote |
|-------------------------------|--------|-------------|---|
| Affective State | 1 | P15 | "Everyone was in good mood so it was easy to feel the same way." |
| Circumstances | 2 | P23 | "... but I was bummed out when I read her furlough text." |
| Relationship | 3 | P24 | "Sometimes I think she thinks quite a lot about herself, so I was very happy (but surprised) that she was so kind." |
| Attitude | 4 | P10 | "I was pleased that she has not given up on me despite earlier attempts to connect when I forgot or just could not make it. She was persistent." |
| Unexpectedness | 5 | P19 | "Relatively neutral ... but do not feel like it had a lot of meaning. It's more or less my role in society as a tall person." |
| | 6 | P14 | "A little irritated and nervous, as I had never danced with him before (except for some student parties where we had happened to be on the same dancefloor)." |
| Timeliness | 7 | P15 | "I did not sleep well last night so when I woke up to a wholesome breakfast of oatmeal with fresh fruit and a warm cup of tea waiting for me and our children, it made me very happy." |
| Fit with individual | 8 | P14 | "... a little insecure because it always means a lot to me to share my artworks with someone ..." |
| Investment | 9 | P09 | "I felt a bit sad, it had cost him so much energy." |
| Intentions | 10 | P24 | "It was nice that he gave it but also an indirect comment." |
| Prioritizing the recipient | 11 | P24 | "I could have done it yesterday so it would arrive sooner, but a date visited me yesterday so I didn't make time for my friends card (feel slightly sorry for spending time with a date above making time for a friends card)." |
| Anticipated success | 12 | P11 | "... but unfortunately the sewing thread with the matching color got empty so sadly the t-shirt is in an unfinished state." |
| Consequences | 13 | P07 | "I felt slightly guilty as I'm more used to doing things for others." |
| Responses to Acts of Kindness | 14 | P16 | "... yet I did not have the feeling I thanked her in a sufficiently cordial way." |

Appendix B. Supplementary Materials

The following is an overview of the factors identified in the diary study. The overview includes a brief description of the factors and two examples illustrating how the factors impact actor and recipient experiences of acts of kindness. Supplementary data to this article can be found online at <http://doi.org/10.1016/j.ijadr.2025.08.003>.

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